ISSN: 0095-2699

AGRICULTURAL LIBRARIES INFORMATION NOTES

INTRODUCING AND ADMINISTERING ONLINE INFORMATION RETRIEVAL SERVICES

by

George R. Lewis*

INTRODUCTION

This paper will deal with the administrative and less technical details of introducing and administering online information retrieval services in a medium-sized university library. It is presented from the perspective of a library administrator rather than that of a computer scientist, search analyst, or an information specialist. It presents a brief description of how Mississippi State University (MSU), with limited funds and personnel, established a program of online information retrieval service. Perhaps the story of one library's success will lend encouragement to other libraries in less than ideal circumstances that wish to offer computer assisted information retrieval services.

Mississippi State is no Ohio State or Michigan State in many respects. However, it is a land-grant university of 12,500 students with a library budget of $1,400,000, a budgeted staff of 52 full time employees (plus 125 part-time student assistants), a collection of approximately 560,000 accessioned volumes, and an annual circulation of approximately 191,000. The Library is a member of the Association of Southeastern Research Libraries (ASERL), a charter member of the Southeastern Library Network (SOLINET), a charter member of the National Agricultural Library's Document Delivery System and other cooperative endeavors. It has a Computer Assisted Information Retrieval Service (CAIRS) which was begun in mid-1975.

MANAGEMENT PHILOSOPHY

Two of the most important factors in the introduction and initiation of an online information retrieval service are: (1) the philosophy and attitude of the library administration and (2) staff attitude. The philosophy and attitude of the library administration, whether positive and enthusiastic, indifferent, or negative, will determine whether this or any other program of service can be successfully provided. What is your library management's philosophy toward library automation? Have you ever wished that library automation would ever just go away? Or, at least until you retire? (If this is your philosophy, you may be retiring sooner than you expect.) Why this philosophy? If it is negative, is it due to an inadequate knowledge of newer technological development? Is it due to a fear of the new, unknown or different? (You don't have to know computer programming or be a computer scientist.) Is it due to inadequately trained personnel

**Dr. Lewis is Director of Libraries at Mississippi State University. This article is a condensation of a paper presented to the Science and Land-Grant Library Conference, Colorado State University, November 18-19, 1976.*

(Continued on page 2)

(Continued from page 1)
(resulting in staff resistance), lack of financial support, etc.?

I thought we were doing fairly well at Mississippi State University in our efforts of program development with our IBM 357 Circulation Control System, the OCLC*/SOLINET shared Cataloging Service (with all the promises of interlibrary loan, serials control, acquisitions, etc.) our computer print-out of journal and newspaper holdings, until one day one of our professors and a personal friend said, "I don't care what you have for internal processing. What I'm interested in is your utilizing new technological developments that will quickly and effectively provide me with the information I need in my teaching and research. I don't have the time and can't afford to continue doing information searches as they have done in the past." That statement gave me reason for prompt reconsideration of our ongoing program and new directions for the future.

My philosophy is that computer assisted information retrieval is not a passing fad, but rather it is the way of the future for reference services. Online bibliographical searching has become a commonly used aid to reference libraries and researches. Commercially available online computer based data bases have been available to academic libraries since the late 1960's, but as recently as 1974 few academic libraries offered this service to their patrons. This has changed during the last two years and is now one of the fastest growing services in academic and research libraries.

The staff's philosophy and attitude toward a new idea or program of service can be almost as influential as that of the library administration. How does one overcome staff resistance? This can be accomplished through staff development and improvement, and through in-service training programs. Components of such programs should include in-house seminars; workshops, which include visitations and observations of ongoing installations; attendance at professional meetings; and one-to-one instruction. Workshops and hands-on demonstrations are conducted by suppliers of online information services, such as Lockheed, Systems Dynamics Corporation (SDC), Bibliographic Retrieval Services, Inc., (BRS), National Agricultural Library (NAL) and others.

Sometimes, refusal of a staff member to accept change may necessitate a reassignment of that staff member. However, through proper and adequate leadership and training, most staff members are happy to welcome new developments in library service.

At Mississippi State University we had worked with the North Carolina Science and Technology Research Center for offline searching since 1970. Two of our librarians were selected for intensive training as search analysts for online information retrieval. One of these staff members attended a three-day workshop at Texas A&M University sponsored by the National Agricultural Library where she had hands-on experience in the use of the CAIN (AGRICOLA) Data Base.** The National Agricultural Library sent a representative to our campus for a public demonstration of the CAIN Data Base. Later, these two staff members attended an ERIC*** workshop in Alabama. Both Lockheed and Congressional Information Service (CIS) sent representatives to our campus for staff training sessions. Our educational process was further facilitated by other library automation activities such as the Circulation Control System and the installation of the OCLC/SOLINET System. Hence, staff acceptance has been nothing short of enthusiastic.

SELLING THE PROGRAM TO: YOUR ADMINISTRATION, YOUR USERS

This paper cannot change your philosophy toward library automation, but you can. Every situation is unique. Assuming that your library managements's philosophy endorses the concept of an online information retrieval service, how does one sell the program?

---

*Ohio College Library Center
**CAIN (CAtaloging-INdexing)
AGRICOLA (AGRICultural OnLine Access)
***Educational Research and Information Center

(Continued on page 3)

(Continued from page 2)

TO YOUR ADMINISTRATION:

A positive attitude and good public relations are two essential components for good rapport with your administration. At Mississippi State University, we are fortunate to have an administration that is library oriented and supportive of new developments in our library program. This means, however, that I had to do my homework many weeks in advance by describing to them the advantages of this new service. They readily recognized the necessity of this and other new developments if the library is to remain a vital element of the University's total program. This did not mean that the library received all the financial support that I needed or wanted. But, something can be said for just having your administration's moral support.

TO YOUR PUBLIC:

How is your public relations program? Good public relations can mean the difference between success and failure of your computer assisted information retrieval service. Of the various avenues of communication with your public, word-of-mouth has proven to be the best. One can find no better support and no better public relations personnel than satisfied users. At Mississippi State University we invited faculty and administration from across the campus and librarians from across the state to attend the demonstrations which were mentioned earlier (Lockheed, CAIN, CIS). These demonstrations generated enthusiasm for the potential of such a program. Many of those people who attended have since proven to be repeat users and have supported and promoted our services. The services rendered to our patrons through the North Carolina offline search service contributed to the acceptance of our online service.

Your public has the need for this kind of service, but do they know about such a service? Do they know that your library is capable of meeting this need? If you demonstrate to them that you can successfully and satisfactorily fulfill their needs, they will respond.

HOW MUCH WILL IT COST?

The matter of cost is of great importance to all of us. Online information retrieval services require hard-dollar expenditures which are not normally associated with traditional library reference services. Exact costs are difficult to ascertain and even more difficult to cover and/or recover. The expenditures for hardware are perhaps the least of all. MSU's Texas Instrument Model no. 733 terminal cost $3255 in June 1976. There are also other brands of both more expensive and less expensive terminals that are adequate for the purpose. (We use our terminal to communicate with our Computing Center to up-date our journal and serials holding records.) Depending upon your campus situation, you may be able to borrow or lease a terminal (or terminals) from your university computing center. Other capital investments include the costs of manuals, thesauri and other necessary and related publications. Factors influencing the cost of online searches include: the communications line costs, length of search, data-base connect charge, number of citations printed either online or offline, etc. Staff time is perhaps the most expensive item, but is not usually charged to the patron, if the patron is paying for the service. Within the time period, November 1975 – November 1976, Mississippi State University, through its CAIRS program, has done 92 searches for a total cost of $1,432 for connect-time, communications charges and offline print charges for an average cost of $15.55 per search rendered. (See table on page Mississippi State University uses National Watts Line and Direct Distance Dialing.

NAL funded CAIN programs have been conducted at Auburn University, the University of Wisconsin-Madison, the University of Minnesota, Colorado State University and the University of California-Davis, and elsewhere. The Auburn University statistics show a per search cost of $34.33, excluding staff time for 183 searches. The University of Wisconsin research project revealed a per search cost of $14.14 for connect-time, offline printing and telephone charges. The University of California-Davis per search cost was estimated at $13.20 for 1974/75 and was $8.61 for 1975/76. The report of a study conducted by Lockheed and sponsored by NSF in four public libraries in the San Francisco Bay area revealed an average total direct search cost of $28.41, exclusive of telephone line charges (including labor costs).

How does one cost these services? There are basically three methods of costing services: (1) Free-full support. Budget support by the university-either

(Continued on page 4)

(Continued from page 3)

MISSISSIPPI STATE UNIVERSITY
COMPUTER ASSISTED INFORMATION RETRIEVAL SERVICE (CAIRS)
SUMMARY OF CAIRS STATISTICS
November 1975 - November 1976

Base	Number accesses	Number accesses with off-line prints	Average number references printed off-line per access
ERIC	37	33	113
AGRICOLA (CAIN)	21	20	121
ABI/Inform	7	5	24
AIM/ARM	7	6	90
BIOSIS	7	6	118
Psychological Abstracts	5	5	99
Social Science Citation Index	3	0	0
ASI	1	1	74
CIS	1	0	0
COMPENDEX/Engineering Index	1	0	0
Dissertation Abstracts	1	1	3
NTIS	1	1	44
Totals	92	78	

Statistics

	Total	Average per base access (92 accesses)
Connect time (hours)	15.1 hours	.16413 hours
Connect time (cost)	$502.11	$ 5.46
Communication charges	227.85	2.47
Off-line print charges	701.68	7.62
Totals	$1431.64	$15.55

Number of patron contacts resulting in searches 70

These searches include those done for three other universities in the state. We expect to extend search services to business and industry in the state.

(Continued on page 5)

(Continued from page 4)

through the library, or as a sponsored service through the University. Several universities provide free online information retrieval service the same as they do other reference services; (2) Marginal, or partial cost recovery. This usually consists of passing along to the user costs involved for connect time, communications costs and offline printing; (3) Full cost recovery--which would be passing along full costs-including staff time - as well as other indirect costs, such as equipment costs, rental costs, maintenance contracts, etc. MSU's CAIRS program uses the partial cost recovery method of support.

SECURING FUNDS FOR ONLINE INFORMATION RETRIEVAL SERVICES

The National Agricultural Library has been active in the support of grants for the use of the CAIN Data Base. The grants have been relatively small in amount, but have served as seed, or incentive money, for online information retrieval programs and at the same time helped NAL and all of us.

Depending upon your individual situation and program being proposed, there are other grant sources available, such as the National Science Foundation's (NSF) Office of Science Information Services, private organizations, state, and local funding through your university, etc. An example of NSF Funding is the cooperative project between Lockheed and the Cooperative Information Network (CIN), an intertype consortium in northern California. This project involved four public libraries, that covered urban, suburban and rural libraries in the region. The results of this study are reported in the *Journal of Library Automation,* September 1976, by Michael D. Cooper and an associate.

As indicated previously, some universities provide funding either in the library's budget or in supplemental funding for full support of such a program. At Mississippi State University, we secured funding for the hardware from two different sources: (1) The Southern Rural Development Center, as a result of the Library's participation in the publication of a bibliography by the Center. (2) Funds from lapsed salaries made available by our Academic Vice-President. (You see, you need the support of your administration.) We have also been successful in getting two areas of research to underwrite search costs for their graduate students and staff personnel. The Library has effectively directed library funds to underwrite a portion of the cost of our online service. No effort has been made to recover costs of staff time. This kind of funding is better known as "Shoe-stringing it." It is not the most desirable method, but it is preferred over no program of online information retrieval service. Perhaps your local computer center has hadrware that is not fully utilized and it can be made available on a loan or rental basis. Both of these arrangements are less desirable than the purchase of your own equipment, but if you have no alternative, they may make it easier for you to begin a program of limited service.

LOCATION OF ONLINE SEARCH SERVICE

One would logically expect online information retrieval services to be located in the (or a) reference service area since it should be considered a part of the Library's regular reference program rather than a special service. Therefore, there would be no need for a separate administrative unit. Although, in some universities, an information center is established outside of the University Library, an example being that of the University of Georgia.

Since this service is located within the reference area, the question of staffing naturally arises. How much staff is required? What kind of qualifications must they have? What should be their relationship with other staff members? Should they devote part-time or full-time to online searches?

Our experience, as well as that of many other institutions, has shown that a competent and successful search analyst does not have to be a computer scientist, but must be a capable person with an analytical mind who is willing and interested in new and different undertakings. Our two analysts are: a Science Reference Librarian and a Humanities Reference Librarian. In addition to these qualifications, they have attended workshops, received individualized instruction, have observed hands-on demonstrations and have tremendously enhanced their technological capabilities through personal study and work at the terminal.

(Continued on page 6)

(Continued from page 5)

Whether analysts devote part-time or full-time to online searching will depend upon the volume of work, the number of staff available and one's philosophy toward the involvement of the entire reference staff. Experience has shown that the reference interview is very demanding on the analyst's time and that soon the analyst will need to be released from other assignments. Although a minimum number of staff members will be involved in in-depth training and online searching, it is my belief that all reference librarians should have considerable knowledge of the search techniques and procedures, although they would not be performing online searches.

COMMERCIALLY AVAILABLE MACHINE READABLE DATA BASES

Access to commercially available data bases is usually available through direct access or vendor agencies such as Lockheed's DIALOG Service, SDC's ORBIT, National Library of Medicine's MEDLINE, or Bibliographic Retrieval Service, Inc. (BRS), etc. The number of data bases available through Lockheed and SDC is increasing and, at last count, we have access to 60 through Lockheed. Since we are all interested in AGRICOLA, it is available through Lockheed, SDC, and BRS. BRS is a new, private, for-profit organization established to offer services that are competitive with Lockheed and SDC. Through the organization of consortia, individual contracts, etc, BRS provides services with connect charges as low as $10 per hour for some data bases. The company is located in New York and is soliciting business nation-wide. The appearance of this organization is representative and indicative of other such services that are appearing on the information market. Perhaps this is the development that will make online services available to the masses at a reasonable rate.

CONCLUSION

Online information retrieval is not a passing fad-it is the way of the future. It requires a change in our administrative philosophy and attitude toward library service. It requires a staff with qualifications different from those of traditionalist and this special training must be acquired in addition to the traditional preparation. It will require special budget considerations. Stronger university administrative support is essential in order to make provisions for the extra demands of this expanded service. However, if librarians view this type of service as a vital part of a viable university library program the administrative support will be forthcoming. What are our alternatives? We have no alternatives! You will have to build your own case with your staff, faculty and administration and establish your own program. The question is not "will we?' but "how soon!" I feel the word is GO! Now!

AGRICOLA ONLINE COURSE SEPTEMBER 19–23, 1977

The National Agricultural Library is sponsoring a five-day workshop to train librarians and information specialists in the utilization of its AGRICOLA bibliographic data base in an online mode. Charles L. Gilreath, who compiled the *CAIN OnLine Users Manual,* will teach the course with the aid of terminal instructors.

The course will be held September 19-23, 1977 at the National Agricultural Library, Beltsville, Maryland. Registrants will be responsible for their lodging, meals and transportation, but all equipment, manuals and instructions will be provided by the National Agricultural Library. Persons wishing to attend should submit their names on letterhead stationery by August 22, to:

Automated Retrieval Service
National Agricultural Library
Beltsville, Maryland 20705.

Emergency telephone reservations may be made by calling (301) 344-3834.

Twenty persons will be accepted in the course with preference given to government, land-grant or agriculturally related organizations in the East. The course is introductory to the use of AGRICOLA; no prior terminal experience is required. The course will provide extensive lecture, exercise, and terminal experience with commercial systems offering AGRICOLA.

DIRECTOR'S COLUMN

We have just been through one of those long, hot spells that give Washington the reputation of being the least desirable place in the world to spend a summer. This year included an unusually dry spring and early summer that saw me carrying buckets of bath and washing machine water to my daylilies. They appreciated the favor and responded with taller and larger blooms than I have ever seen. Much of our effort at the Library has been spent in orienting our new administrative officers to our piece of the USDA action. There has been also the task of becoming familiar with the zero base budget system. Because of the new Federal fiscal year we head into final budget preparations in mid-August, the traditional vacation time.

Speaking for NAL I will say that we are very pleased with our new policy level officers. Secretary Bob Berlgand and Deputy Secretary John White bring to the Department energy, administrative skill, and political know-how. The atmosphere is friendly and open but characterized by no-nonsense and hard work and a determination to give the taxpayers their money's worth.

Our immediate superiors are Dr. M. Rupert Cutler and Dr. Jim Nielson. Cutler comes from Michigan State and Nielson from Washington State. Both are thoroughly grounded in the land-grant systems and completely knowledgeable about what a library can and cannot do for scientists and researchers. They have all been out to NAL for our special introductory tour. All of our automated systems were "up" permitting us to show off our services in the very best light. There is no doubt that Library needs and concerns will be given a sympathetic hearing by these men. Nevertheless we are all operating in the cold light of President Carter's deadly serious plan to cut back on the number of Federal employees. There is no sign that this is being done precipitately and every evidence that the opposite is true. But it will come and will mean that Federal libraries, including NAL, will have fewer hands to get the job done.

Coupled with this are two additional factors that are of serious concern to us since they will result in slowing our ability to respond to your requests for library materials. First is the announced plan of the Library of Congress to discontinue lending physical volumes to other Federal libraries. It has been possible for many years to send our man to LC, where he could retrieve a volume and make a quick copy for you. The new regulation, which has not yet been implemented, calls for completion of standard ILL forms and the longer wait for LC photocopy services to supply the material. The second factor is the new copyright law which will be with us in January of next year. LC is asking us to clear the copyright permission before our requests come to them. The prospect of this kind of paper work appears horrendous. We understand and are generally sympathetic with LC's needs in the light of its special mission. At the same time we are deeply concerned that all of this is going to lead to slower and more costly library service.

On the international front we have received the report of the evaluation of AGRINDEX. It recommends that top priority be given to the NAL data base, and that "the incorporation of the full input for the United States is essential to the continued survival and success of AGRIS". There is also the suggestion that if we cannot convert our data to the AGRIS format FAO should support the conversion program itself. We expect to meet in Washington with FAO officials next month to iron out some of the questions posed by this development.

—Richard A. Farley

DOANE INFORMATION CENTER INDEXING SYSTEM (DICIS)

by

Jim Wiesemeyer

Doane Agricultural Service, Inc., headquartered in St. Louis is the hub of a network of over 30 Doane offices. From these offices the Doane staff offers a wide variety of problem solving services to farmers and businessmen.

Doane published agricultural books and periodicals (*Doane's Agricultural Report* and *Farming for Profit*) are received by over 300,000 farmers each month. Doane manages over 1,400 farms, ranches, and plantations. The company consults with American farmers, utilities, agricultural, and industrial firms. In addition, numerous foreign consultation projects are undertaken each year. Doane also completes over 800 separate appraisals each year on rural, city, and industrial properties. On an annual basis, Doane conducts multi-client studies on several important agribusiness products and services. These studies include market reports on: herbicides, insecticides, fertilizer, feed and animal health.

It is easily noted that information not only supports the Doane organization, it is also a major product of the company. To handle the great demand for current agricultural information, Doane has set up a library system to fit its needs utilizing a minicomputer. But, it is not an isolated system. The input comes from all divisions. The system was set up with the users in mind. Too often, librarians do not do their "market research."

Doane's Information Center utilizes a Four-Phase minicomputer for data entry and an IBM System 360/40 for data processing.

The Manager of the Information Center decides which material is to be entered into the system. All periodicals are routed through the Information Center each morning (approximately 500 per month). Periodical articles entered are given a check mark. Since the periodicals are routed throughout the company, if Doane editors or the Market Research staff cite an article that is not checked and they feel it should be entered, they re-route the article back to the Information Center input station (once again, user oriented). Other entry items include land-grant college publications, U.S. Department of Agriculture bulletins, circulars, books (Ag and Business), speeches, etc. A noteworthy addition to DICIS is proceedings from agricultural conferences, often held at the land-grant colleges. Doane feels the most significant agricultural research appears in conference proceedings months and sometimes years before it is documented in the agricultural college bulletins. DICIS includes individual papers presented at the conferences for complete coverage of new products, production costs, etc.

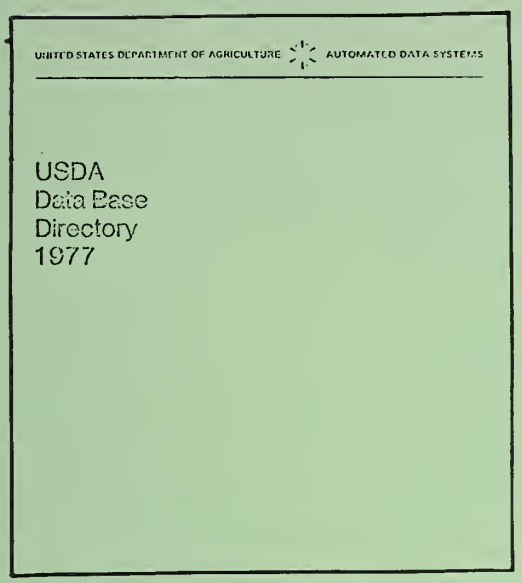
Each week a printout of new additions to the collection is distributed to the Doane staff. The citation, analagous to a catalog card, contains publication title, subject, catalog identification, and author/publisher where appropriate. Material can be retrieved by using any one of these four categories.

The Manager of the Information Center periodically surveys and interviews departments/divisions to see if the Information Center is meeting their needs. Orientation and re-orientation sessions are held. Since the arrival of DICIS, two hour orientation sessions have been held throughout the whole company, fully explaining the new system and pointing out significant reference items geared to the employees job responsibilities. Knowing how to use our collection is frequently stressed.

The most significant aspect of DICIS is why Doane had to develop such a system. Though the current literature data bases available (AGRICOLA, Smithsonian Science Information Exchange, etc.) fulfill a specific function, Doane found that they just were not as up-to-date as our company needed. Also, having a system in-house enables one to input what we want entered, when we want it and in what format -- in other words, we have the control.

Also, we found that AGRICOLA was not indexing the more popular farm periodicals and newsletters (*Delta Farm Press, Hoard's Dairyman, Doane's Ag Report,* etc.) as fast as we could, or were not indexing them at all. In the past, we were told

(Continued on page 10, col. 1)



A directory entitled *USDA Data Base Directory* has been published by the Office of Automated Data Systems (ADS), U.S. Department of Agriculture. The directory is a brief listing of online data bases (such as AGRICOLA) maintained by agencies in the U.S. Department of Agriculture. This first edition describes 56 data bases from 19 different USDA agencies. The following information, when applicable is provided about each data base or file: the organization responsible, person to contact, system name, processing location, software used, operation size, number of records, record size, personal data, source of data, update mode and cycle, data base description and reports, USDA programs supported, major data elements and other interested agencies.

The Department has the responsibility to provide the Government, the private sector and the public with current and reliable agricultural data. The directory is intended to serve as a coordinating and look-up mechanism for machine-readable agricultural data users in support of data interchange. Although the first compilation lacks many files, new editions will be provided periodically as submissions are made by Agencies on other existing and new automated files and data bases.

The National Agricultural Library has the responsibility to coordinate bibliographic data base efforts within the Department. Efforts are currently underway by the USDA Bibliographic Data Base Task Force (chaired by Ronald Walton) to compile additional information on USDA Bibliographic Data Bases. When completed, this information will be included in the next edition of the directory.

The directory is not a document depository item for libraries. Copies are available from NAL. Send a return addressed label with your request to:

Reference Division
Room 111
National Agricultural Library
Beltsville, Maryland 20705

– Ronald J. Walton
Chief, Computer Applications

(Continued from page 8)

"popular farm magazines and newsletters are secondary, reporting information contained in land-grant college publications;" however, Doane has long believed that popular farm magazines and newsletters report agricultural research findings months (sometimes years) before college bulletins are published, if at all. Also, these popular articles are easier to read, loaded with charts, graphs, etc., and frequently give other university researchers doing similar research contacts.

The Doane Information Center Indexing System is not trying to present a complete index to agricultural literature--far from it. We want to index the most significant agricultural information in the most timely fashion. We want to index the real world of agriculture, aspects we have observed in week to week communication with subscribers through the pages of *Doane's Agricultural Report,* and through daily contact with Doane farm managers who must make the same kinds of decisions farmers make. A large part of this indexing system is user oriented. Many publications are omitted--some subjects will be added later. What is between the covers of the subject volumes represents a user approach that we think is practical in today's agriculture.

CROP INFORMATION SYSTEM

Did you know that U.S. Department of Agriculture scientists have developed a computerized crop information system that will help agronomists and plant breeders do a better job of matching crops with the right environment?

The system, which keeps information on the growing season, temperature range, rainfall requirements, and other environmental factors for 1,000 economic plants, was put together at the Plant Taxonomy Laboratory, Beltsville Agricultural Research Center. The system is now operational. By filling out a questionnaire describing their particular environment, correspondents can find out what crops will grow under their conditions. Scientists manning the system can identify stations around the world that grow or have grown a particular crop under the conditions described by the requester, and in some cases can locate seed sources.

BRITISH LIBRARY PROJECT: A REVIEW OF INFORMATION RESEARCH IN AGRICULTURE

The Agricultural Extension and Rural Development Centre in the University of Reading is undertaking a two-year project entitled "A Review of Information Research in Agriculture." This project, which began in October 1976, is the fourth in a series of reviews of information research in selected sciences, which are being sponsored by the British Library. The main aims of these Reviews are to consider critically what is already known about the production, dissemination, and use of information in each particular science area, and to identify specific information problems which merit further study or experimentation.

The Review of Information Research in Agriculture will concern itself with all aspects of the generation, transfer, storage, retrieval and use of agricultural information. Its focus will be the information system among members of the agricultural scientific community (including agricultural scientists, advisers, teachers, and agriculturists employed in industries and organisations which serve farmers).

More specifically, the project will aim to identify and evaluate any studies of agricultural information relevant to the UK situation and to indicate what users will require in the future from information services. It will also define subjects for further detailed investigation, recommend priorities for the establishment of these investigations.

For further information contact:

Mrs. Gillian M. Craig
Research Officer
Agricultural Extension and
Rural Development Centre
The University
London Road
Reading, RG1 5AQ
ENGLAND

NEWS NOTES

HEW's National Institutes of Health has announced publication of the sixteenth *Research Awards Index (RAI),* DHEW Publication No. (NIH) 77-200. Formerly called *The Research Grants Index,* the annual index contains scientific data on more than 20,000 active Public Health Service grants and contracts during fiscal year 1976. NIH is one of the six agencies of the PHS.

The *RAI* is published in two volumes. The first volume contains about 8,000 subject headings under which appear the identification numbers and titles of pertinent projects. Volume II contains project identification data including names of investigators, their address and project titles; a separate section on research contracts; and an alphabetical list of grantee investigators.

Copies of the *Index* may be obtained by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20242. The price is $21.75 domestic postpaid or $27.19 foreign postpaid. (Please refer to stock number 017-041-00124-6.)

* * * *

The University of Illinois Graduate School of Library Science has recently published the proceedings of the Thirteenth Annual Clinic on Library Applications of Data Processing held at the University of Illinois, April 25-28, 1976. This publication, *The Economics of Library Automation,* edited by J. L. Divilbiss, deals both with specific library processes and with more general techniques for determining costs and benefits. In each case suggestions are made for coping with the unavoidable problems of cost and value.

In the first paper Frederick Kilgour answers the question of what is meant by the economics of library computerization. Ryburn Ross analyzes the cost of automation in technical services, and Robert Thorson deals specifically with the economics of automated circulation. In his paper, Hugh Folk speculates about the near future when scholarly journals will exist only as online computer files. Other papers discuss the economics of computer output media, catalog conversion and book catalog production, and one paper in particular presents an interesting study of the economics of independent, rather than cooperative, development.
Copies are available for $8 from: Publications Office, Graduate School of Library Science, 249 Armory Building, University of Illinois, Champaign, Illinois 61820.

* * * *

The University of Illinois Graduate School of Library Science has released the January 1977 issue of *Library Trends* (volume 25, number 3) entitled "Trends in Bibliographic Control: International Issues," edited by Mary Ellen Soper, Assistant Professor, and Benjamin F. Page, Associate Professor, of the School of Librarianship, University of Washington.

The purpose of this issue is to bring together in one place some of the recent developments and decisions concerning bibliographic control. The challenge to bibliographic control is seen as an international one. Responsibility for the solution to the problem rests with each country cataloging its own publications and sharing these data with other countries. The tool that makes sharing possible is the computer.

Doralyn Hickey's article describes past and present efforts toward centralization and standardization in cataloging, and discusses the dangers and benefits of standardization. Michael Gorman focuses on the rules for entry and heading, and Ronald Hagler reviews the rules for description with emphasis on how the second edition of AACR will present them. Dorothy Anderson describes the role that the national bibliographic center plays in the UBC concept, and Maurice J. Freedman brings us up-to-date on the automation of cataloging. Other areas dealt with are the transmission of bibliographic records in machine-readable form, rules for organizing audiovisual materials, and the special problems of the bibliographic control of serials.

(Continued on page 19, col. 1)

NEWS FROM THE FIELD

Norma Gordon of McKeldin Library University of Maryland reports that since March of 1973, several members of the reference staff of the McKeldin Library, University of Maryland, have been producing on a regular basis a selective subject bibliography of the experiment station and extension service publications of all fifty states, as a service to the cooperative extension personnel of Maryland.

The publication developed as an aftermath of a project undertaken jointly by the University's Department of Agricultural and Resource Economics and the Maryland Cooperative Extension Service "to study and test information methods within the Maryland Cooperative Extension Service." The results of that study indicated that the University of Maryland Libraries could provide a useful service by making available to extension personnel a "current awareness" listing of pertinent publications from nearby states and from states further afield as well, where material was relevant.

After the first year, recipients were polled for their reactions and suggestions, and the response was overwhelmingly favorable. Suggestions for added emphasis in cetain subject areas (*e.g.* 4-H projects, etc.) have been followed up where possible, and the publication (now on a bi-monthly basis) continues to be distributed to some 450 extension workers.

Since the agricultural experiment station collection is now the responsibility of a newly upgraded Government Documents section, the bibliography is now produced under the aegis of that department. For further information on *Selected Agricultural Publications* contact: L. M. Sebo, Documents Division, McKeldin Library, University of Maryland, College Park, Maryland 20742.

– *Antoinette P. Powell*
University of Kentucky

The ninth annual meeting of the Council on Botanical and Horticultural Libraries (CBHL) was held at The Morton Arboretum in Lisle, Illinois, and The Chicago Botanic Garden April 27 through April 30, 1977. CBHL membership consists primarily of persons throughout North America and Europe in charge of botanical and horticultural libraries in public and private institutions; botanical and horticultural bibliophiles; garden historians and garden writers. Discussions and papers at the meeting concentrated on preservation of library materials, disaster preparedness, security of collections, copyright laws, and government resources. The usefulness of the Council's duplicate exchange program was discussed and considered a project worth continuing and probably expanding. For several years CBHL has been exploring the possibility of publishing a union list of nursery and seed trade catalogs issued before 1920. It was decided at the 1976 annual meeting to do a preliminary survey of North American nursery and seed trade catalog collections. The results of this survey seem to indicate that such catalogs are found in very few university library collections; more often this material is located in the archives of public libraries, museums, historical and horticultural societies, or with private individuals and nurseries.

Membership in CBHL includes a subscription to their quarterly *Newsletter* and the duplicate exchange lists; annual dues are $10 for individual members and $25 for institutional members. Inquiries should be sent to: John R. Reed, Treasurer CBHL, New York Botanic Garden, Bronx, New York 10458. The Denver Botanic Gardens will host the tenth annual meeting of the Council on Botanical and Horticultural Libraries in June 1978.

* * * *

Robert Sickles, Biological Sciences and Agricultural Bibliographer at Iowa State University Library, reports that ISU is operating a Current Awareness Reference Service (CARES) and a retrospective computerized literature search service to keep campus agricultural research workers up to date on new developments in their fields. CARES batch searches on a weekly cycle. The system annually scans more than 750,000 article titles from 3,500 journals in science and medicine, 125,000 conference papers presented at 2,500 professional meetings, and all articles abstracted and cited in *Government Report Announcements & Index.*

(Continued on page 13)

(Continued from page 12)

CARES also includes AGRICOLA, as well as the Commonwealth Agricultural Bureaux's *Veterinary Bulletin, Index Veterinarius,* and *Review of Medical and Veterinary Mycology* data bases. A corresponding five year retrospective search service is available for any of the above data sources except those from the CAB. An average CARES profile of 40 terms producing 20 notifications per week costs approximately $4.50 per month. Retrospective searches cost an average of $5 to $10 per year searched. For further information about CARES contact: Charles R. Sage, Lead Systems Analyst, 366 Library, Iowa State University, Ames, Iowa 50011, (515) 294-2172.

– John Beecher
University of Illinois

THE U.S. UNIVERSITY AND TITLE XII

The U.S. University and Title XII conference of 5-7 May 1977 was sponsored by the University of Minnesota in cooperation with the National Association of State Universities and Land-Grant Colleges, the Board for International Food and Agricultural Development (BIFAD), and the United States Agency for International Development (AID). The topic was Title XII--"the Famine Prevention and Freedom from Hunger" amendment to the Foreign Assistance Act of 1975.

The following summary endeavors to include not only those topics of overall importance to universities likely to qualify for Title XII funded projects, but also to highlight for research libraries the implications likely to materialize from a considerably different attack on world famine by university faculty.

University of Minnesota President Magrath's introductory remarks emphasized the seriousness of the universities' role in Title XII which will require feuds to cease and a unified approach adopted. Such a total corrdinated approach must be multi- and interdidsciplinary; only then can the universities be used as the international resources which they are. He pointedly underscored the fact that adequate funds and consistent resources over-time afford the only way which the university can respond.

Arvonne Fraser (Coordinator, Office of Women in Development, AID) focused on the political, economic and social role that women hold in the development and cultivation of food supplies. The goals for women within the context of development are: food, health and family planning.

Saturday's sessions dealt with issues and areas with which BIFAD seeks university assistance. The tone was set by the first two speakers--Dr. David Bell (Executive Vice President, Ford Foundation) and Dr. Ermond Hartmans (Director, Agricultural Operations Division, Food and Agriculture Organization of the United Nations)--by their discussion of necessary changes within universities and the harsh realities of the rural sector in the less developed countries (LDCs). Population control and family planning were recognized as top priority concerns. Dr. Bell identified the serious differences in knowledge level between scientific technology and the behavioral sciences. If this gap is to be reduced, U.S. universities must correct their deficiencies in curriculum, the dissertation process, and sustaining knowledge of the LDCs.

Dr. Hartman's speech combined the issue of human rights as advocated by the establishment of a New International Economic Order (NIEO). As the target group and area is rural, agriculture naturally becomes the essential activity to improve. Often the differences between the needs of the people and central government policy inhibit the course of progressive changes in the rural sector. Inadequacies in the educational system, extension service, land tenure, and status of farmers actively work against the advancement of agriculture and food production, and yet these are the keys for the NIEO in the LDCs. The countries require restructuring, an area best handled through socio-economic research. U.S. universities should assist the LDCs, develop adequate undergraduate university programs and stop admitting foreign students at this level. For LDC graduate students the Ph.D. program needs adjustments to include administrative and management principles and training. Dissertation work should relate to a subject in their own country. If universities with Title XII funds adopt these recommendations, libraries will be directly implicated.

BIFAD committee reports followed with Dr. Fred Hutchinson, Chairman, Joint Committee on

(Continued on page 14)

(Continued from page 13)

Research (JCR) speaking first. Although the process for participation in Title XII has not been completely defined or a list of programs prioritized, Dr. Hutchinson stressed that the JCR expects universities to demonstrate commitment suitable for long-term funding (five years was frequently mentioned).

Dr. Woods Thomas (Executive Director, BIFAD) spoke for the Joint Committee on Agricultural Development (JCAD). The initial charge from BIFAD to the JCAD is to identify potential programs in the LDCs and to develop the means for assessment in order to determine what the program needs will be and how best to meet them. Stress will be placed on strengthening delivery systems essential for rural development. Appropriate adult education and extension services comprise part of any program; the challenge to U.S. universities will be the deployment of their educational and research talents to bear more directly on the LDCs problems with the objective of developing appropriate means and models to establish and advance the research capacity in the LDCs.

The second part of Saturday's program delved into ways universities need to be strengthened in order to respond effectively to Title XII, and also provided a forum for representatives of BIFAD and AID to be questioned about a variety of issues. Some attention was given to the behavioral aspects of the LDC's, especially the importance of studying socio-economic systems, something which technocats and AID have wished to avoid.

Another theme was innovation within the universities which would enable international work to be accepted in promotion, tenure and salary considerations.

Although the speakers during this session addressed various institutional problems, not once were research libraries mentioned. This oversight suggests the urgency of librarians to better communicate the implications of Title XII to the appropriate university officers.

Congressman Paul Findley's evening speech focused on the role of education in the LDC's. The importance of increasing food production was underscored by the fact that in the 18 months since the approval of Title XII legislation, 90 million people have been born in the LDCs. No longer is attainment of improved living standards a question of expansion of natural resources; rather, it is advanced through education via systems designed to reach farmers working in the fields. Finally, the audience was cautioned about Congressional impatience, noting that despite massive funds over many years the problem of world hunger remains. Congress maintains a strong interest in Title XII and wants to know how it can help.

Saturday continued official reports and also developed some responses to the issues raised thus far. Dr. Ralph Smuckler (Dean, International Programs and Studies, Michigan State University) summarized the findings of the University Linkages Study (a feasibility study of different models for international work by universities). Central to the study was the question of how best to strengthen universities' international programs and curriculum. Mutually beneficial long-term linkages and ties between LDCs, international funding agencies and universities are needed. Legislation is the best defense for such commitments. Title XII offers new modes of cooperation with the LDCs: models of linkages would also be established with more advanced Third World countries (*e.g.*, Brasil, Mexico) enabling continued contact after an assistance program ended.

Given the massiveness of the food problem, all academic resources are needed. The six discussion groups in responding to this fact produced an extensive list of recommendations devoted to university structure and purpose. Although central to the process of identifying responses to specific issues, the questions of whether the LDCs want Title XII, the dichotomy between policy formulated by a political elite and the desires of the rural masses, and human rights were ignored.

If the salient points can be summarized, they are as follows: international program assignments must be recognized as an equal to teaching, research and extension; administration of international activities need to be centralized; legislatures and constituents need to be sold on the merits of international programs; faculty should be involved from the beginning in planning; criteria for selecting LDC participants should reflect income level, diplomatic relations, physical quality of life index, potential of production, government

(Continued on page 17, col. 1)

FIREBASE: AN EXPERIMENTAL ONLINE FILE FOR WILDLAND FIRE INFORMATION

FIREBASE was developed by Alan R. Taylor, a fire scientist at the Intermountain Station's Northern Forest Fire Laboratory in Missoula, Montana. This effort was directed by a steering committee in the Forest Service's Washington Office. Presently FIREBASE is undergoing a two-year operational test. The Pacific Southwest Forest and Range Experiment Station Library was selected as a regional FIREBASE search center for the West Coast. Other service centers include the U.S. Department of Interior Library in Washington, D.C., and Forest Service offices in Atlanta, Georgia; Boise, Idaho; and Rosslyn, Virginia.

FIREBASE is designed to provide computer-based information services to the fire management professional to aid in decision-making. It contains, therefore, pertinent historical literature, some dating back to 1903. All materials selected for inclusion have been rigorously reviewed for quality of content and potential usefulness. Aside from publications, FIREBASE contains a great deal of unpublished material, such as A-V training aids, policy memoranda, blueprints for emergency facilities, and even administrative forms. Input is prepared at the Interagency Fire Center, in Boise, with funding from the U.S. Bureau of Land Management and the Forest Service.

The structure of the FIREBASE is highly sophisticated. Searchable fields include broad topics, taxonomic indexes, a highly controlled hierarchical vocabulary, and a modified list of geographical descriptors compiled by FAO. Form tags are also available for some types of materials, such as conferences, theses, computer media, etc. This permits greater creativity in set manipulations and better search results. However, the most interesting feature is the inclusion of lengthy digests. These are intended to supply enough information so that users of the file need not always obtain original documents. The digests try to satisfy the needs of three audiences: a general overview for the lay person; more technical material for the practitioner which stresses findings, applications and conclusions; and, if pertinent, a section aimed at scientists and specialists who need to look at methodology, data, or other details of the experiment. Since the database is designed to service users in remote rural areas without large documentation centers at hand, it is hoped that the digests will provide immediately useful information, thereby reducing the need to consult original documents. Subsequent delivery becomes, therefore, less urgent. Copyright laws permitting, FIREBASE can make most original source documents available on microfiche with the aid of a diazo duplicator. Plans are being made to supply these retention fiche at all the FIREBASE service centers in the near future.

At this early stage of development, however, searching the FIREBASE file does present certain difficulties. The database is currently up at ERDA's Oak Ridge National Laboratory on a string searching program called ORLOOK. ERDA has generously supported Forest Service efforts to build databases by sharing its information processing facilities at a very low cost. ORLOOK was designed for local use, however, and at peak times competition with the many ERDA users result in overloads and searchers can very likely experience difficulties. There are logon problems and inordinately long response times. Breaks in the communication link result in a complete loss of sets, and, until recently, receipt of off-line prints has been haphazard. These inconveniences could be remedied by further systems development.

A fair question to ask at this point is how much duplication exists between FIREBASE, CAB's *Forestry Abstracts,* and AGRICOLA? For current literature, there is, of course, overlap, but we believe this still contributes substantially to our reference services by complimenting these other files rather than duplicating them. Fire literature is multidisciplinary in nature, and FIREBASE draws into a single place information scattered in many secondary sources. Remember, too, FIREBASE contains older literature not found in any other online file such as unconventional materials especially select3d for the Forest Service. It is the only system which can be relied upon to contain the unpublished, but highly useful, reports issued by

(Continued on page 16)

(Continued from page 15)

Forest Service Regional Offices. All this provides the fire specialist with information which is not indexed in any other system. And the inclusion of authoritative digests saves us work in our document delivery process.

On occasions when no literature is found or when we are suspicious of the search results, we make ample use of the "invisible college" and confer with FIREBASE's referral service. At this point the request leaves the library environment entirely and becomes one of professional consultation between our user and wildland fire specialists attached to FIREBASE. This is a very powerful back-up device in our reference services and one which is not usually available in most library services.

People wishing to find out more about FIREBASE should contact: Karen Eckels at FIREBASE, Boise Interagency Fire Center, 3905 Vista Avenue, Boise, Idaho 83705; FTS 554-9455; COMM (202) 384-9455.

Vincent P. Aitro
Pacific Southwest Forest and Range Experiment Station, USDA
Berkeley, California

The following information is extracted from: *Forestry Research. What's New in the West.* July 1977, p. 13-16.

To put FIREBASE into action: 1) think carefully about the kind of fire information you need; 2) call or write the nearest FIREBASE Access Center; and 3) express your need as specifically as possible. The Access Center operator will search the computer file and send the resulting printout of citations and digests you you, usually within three days. The Access Centers are:

FIREBASE Access Center
Science Information Services
PSW Forest & Range Experiment Station
P.O. Box 245
Berkeley, CA 94701
(415) 486-3688
FTS: 449-3688

FIREBASE Access Center
USDA Forest Service, S & PF
1720 Peachtree Road, N.W.
Atlanta, GA 30309
(404) 881-3734
FTS: 257-3734

FIREBASE Operations Center
Boise Interagency Fire Center
3905 Vista Avenue
Boise, ID 83705
(208) 384-9458
FTS: 554-9458

FIREBASE Access Center
U.S. Dept. of the Interior
Natural Resources Library
Research Services Branch
Washington, D.C. 20240
(202) 343-3896
FTS: 343-3896

FIREBASE Access Center
USDA Forest Service
Forest Fire & Atmospheric Sciences Research
P.O. Box 2417
Washington, D.C. 20013
(703) 235-8195
FTS: 235-8195

Like other Forest Service computerized systems with potential national and international application, FIREBASE will be tested and evaluated for the next two years. During this period, FIREBASE is under the administration of the Deputy Chief for State and Private Forestry, Forest Service USDA, and is headquartered at the FIREBASE Operations Center, Boise Interagency Fire Center, Boise, Idaho. Douglas H. Baker, S & PF coordinator at the Center, has been assigned program management responsibilities. Questions and comments about FIREBASE should be directed to him.

Major cooperators in the development of FIREBASE are fire-related division of the Forest Service, the Forest Service Technical Information Office, the Bureau of Land Management, and Oak Ridge National Laboratories of the Energy Research and Development Administration. International cooperation with the

(Continued on page 17, col. 1)

(Continued from page 16)
Agricultural Research Information System (AGRIS-Forestry) under development by FAO of the United Nations, is coordinated by the Forest Service Technical Information Office.

YOU CAN HELP

To serve you better, the FIREBASE file must grow. You can play an important role in the expansion. If you have fire-related information that you feel should be shared with the fire community, you are urged to send it to Ms. Karen L. Eckels, Assistant Manager of the FIREBASE program, FIREBASE Operations Center, Boise, Idaho 83705. If the items are already in the system, they will be returned immediately. Digesting and microfiching new materials may take as long as five months.

Alan R. Taylor, Intermountain Station; and Karen L. Eckels FIREBASE Operations Center

(Continued from page 14)
support for rural development, and the intent of the host government to follow up after the assistance program ends; a matching process of universities with LDCs requirements should be established in order that country priorities are effectively met; universities must make a systematic assessment of their capacity, strengths and weaknesses.

The success or failure of Title XII ultimately depends upon the universities' ability to accomodate the expertise of a wide range of disciplines, and to clearly recognize that LDCs have complex societal organization.

– *Peter T. Johnson*
University of Minnesota-Twin Cities

The Life Sciences Library of the Pennsylvania State University maintains a ready-reference index, in card form, to commodity and input statistics in U.S. Department of Agriculture serial publications. Issues of all series published since 1970 and issues of the *Agricultural Economics Reports* and the *Statistical Bulletins* published since 1965 have been analyzed to reflect, very specifically, commodity coverage, and statistical content.

The index contains some 17,000 card citations. Whether the search approach is by commodity name, statistical category, or issue title, the individual citation card includes the following information: (a) issue title; (b) frequency of the publication or series title and numbers within that series carrying the issue title; (c) call number in the Life Sciences Library, the Pennsylvania State University; (d) special notes regarding related publications, bibliographies, etc.; (e) code numbers (1 through 27) indicating analysis of statistical coverage; and (f) notation of geographic coverage.

The index is divided into three sections: (1) a primary file arranged alphabetically by specific agricultural commodity or product; (2) a file arranged by statistical category code number which allows access to all publications yielding a certain type of statistic; and (3) a file arranged alphabetically by issue title.

This Ready-Reference Index to U.S.D.A. Statistical Series is the creation of Mrs. Jane McFall, Senior Assistant Librarian at the Life Sciences Library, the Pennsylvania State University. The index has already earned the reputation of "major reference tool" among agricultural economists at the Pennsylvania State University, and because it is being considered for publication, the index may soon be available in additional libraries.

– *Vladimir Micuda*
Pennsylvania State University

The Connecticut Agricultural Experiment Station has two duplicate sets of the *Experiment Station Record* complete from vol. 1, 1889 through vol. 95, 1946, except for a few missing indexes.

They will ship these sets collect to a library that wishes them. This offer expires September 15, 1977.

AGRICULTURAL TRANSLATIONS

Because this is a new column, information on how the National Agricultural Library acquires and announces translations might deserve a brief review.

Those listed in this column are also received by the National Translation Center (NTC), John Crerar Library, Chicago, Illinois 60616, and will appear in their *Translation Register-Index* within six weeks after they appear here. The translations themselves, however, will be available from NTC immediately.

Translations received since 1970 by the NAL are online in the AGRICOLA data base, which has upwards of 12,000 translations. Over 21,000 are in the NAL collection. It is unlikely that items received before 1970 will ever be cited in the online system though they can be easily identified from manual records.

Translations are received in the NAL from two major sources. One is through the Special Foreign Currency Science Information Program, the translations of which are generally referred to as PL-480 Translations. Presidential Executive Order No. 10,799 assigned to the National Science Foundation full responsibility for administrative management of this program. Since 1959, about one million pages of original foreign language materials have been translated by foreign contractors and made available to U.S. scientists. The PL-480 translations for U.S. Department of Agriculture personnel are handled through the International Programs Division (IPD) of the Agricultural Research Service. NAL cooperates by providing to IPD photocopies of original language materials required for translation. Completed translations are returned to IPD from abroad. Two copies of each are forwarded to NAL and entered into the collection, becoming available for loan and on-site consultation. IPD also sends a copy to NTC.

The second group of translations comes to NAL from various offices of the U.S.D.A. These are obtained by purchase from private and commercial translators as a necessary adjunct to the work of USDA staff members. One of the most familiar sources is the Joint Publications Research Service of the Department of Commerce, 1000 North Glebe Rd. Arlington, Virginia 22201.

Under USDA Administrative Regulations, Title 2: National Agricultural Library (2AR42) all translations made within the U.S. Department of Agriculture for official use in the work of the Department must be sent in duplicate to the Chief, Reference Division, Room 111, NAL, Beltsville, Maryland 20705. A copy of each translation received under these circumstances is provided by the NAL to the National Translations Center.

Julia Merrill
(301) 344-3834

Recently Received

TRANS. ALIN -- 77-07:
DIMITROV, K. Effect of Windbreaks on Wheat and Maize Fields. Translated from Bulgarian: *Gorskostopanska Nauka* 7 (4): 19-27. 1970.

TRANS. ALIN -- 77-08:
DONN, G., HESS, D. and POTRYKUS, I. Growth and Differentation in Calli Originating from Isolated Protoplasts of *Petunia hybrida.* Translated from German: *Zeitschrift für Pflanzenphysiologie* 69 (5): 423-437. 1973.

TRANS. ALIN -- 77-09:
FEY, R. Heavy Metal Content of Tinned Fruits and Vegetables: 1. Tin and Iron Content of Tinned Asparagus. Translated from German: *Industrielle Obst- und Gemüseverwertung* 54 (2): 27-33. 1969.

TRANS. ALIN -- 77-10:
FRICKE, K. Light and Shade Tolerant Tree Types: A dogma with no Scientific Basis. Translated from German: *Centralblatt für das Gesamte Forstwesen* 30 (8/9): 315-325. Aug./Sept. 1904. (This is listed in the Yale School of Forestry Library *Book Catalog,* but was lost. This translation was made by a member of the USDA.)

(Continued on page 19, col. 1)

(Continued from page 18)

TRANS. ALIN -- 77-11:
LOUBES, C., MAURAND, J. and ROUSSET-GALANGAU, V. Presence of Complex "Synaptonématiques" in the Biological Cycle of *Gurleya chironomi*, Loubes and Maurand, 1975: An Argument in Favor of Sexuality in Microsporidia. Translated from French: *Académie des Sciences. Comptes Rendus. Sér. D.* 282 (10): 1025-1027. 1976.

TRANS. ALIN -- 77-12:
MITSCHERLICH, G. Risk of Gale Damage and Preventive Measures. Translated from German: *Schweizerische Zeitschrift für Forstwesen* 125 (4): 199-216. 1974.

TRANS. ALIN -- 77-13:
PRIESNER, E. The Interspecific Effects of Sex Attractants in the Saturniidae (Lepidoptera). Translated from German: *Zeitschrift für Vergleichende Physiologie* 61 (3): 263-297. 1968.

These items are available to USDA personnel upon presentation of a loan request (AD-245) with the identification: TRANS.-ALIN 77- along with the citation. Non-USDA persons may request photoduplication at the rate of $1 for each 10 pages or fraction thereof per citation. TRANS.-ALIN with the serial number 77- MUST be on the request. Both types of requests should be sent to:

Lending Division
National Agricultural Library
U.S. Department of Agriculture
Beltsville, Maryland 20705

(Continued from page 11)

Library Trends is available from the University of Illinois Press, Urbana, Illinois 61801. Single copies may be purchased for $4; subscriptions on a volume-year basis are also available from the same address for $15.

* * * *

The USDA is testing out an economic new service called "The Farmer's Newsline" over the summer. Up-to-date economic, crop, and livestock information can be heard by calling 800-424-7964 (toll-free) at any time. A new 1½-minute summary, prepared by the Economic Research Service and the Statistical Reporting Service, will be put on the line each day at 4 p.m. EDT.

NEW PUBLICATIONS OF NOTE

Aquaculture for the Developing Countries: A Feasibility Study. Frederick W. Bell and E. Ray Canterbury. Cambridge, Mass., Ballinger Publishing Company, 1976. 266 p. Tentative: $16.50 ISBN 0-88410-296-3. Available from publisher.

Conservation Districts and 208 Water Quality Management. William B. Davey. [Washington, D.C.] U.S. Environmental Protection Agency [1976] 349 p. Free. Prepared by the National Association of Conservation Districts under Environmental Protection Agency Grant No. T900574O1-0. Available from: Environmental Protection Agency Water Planning Division, 401 M Street, S.W., Washington, D.C. 20460.

Forestry Research Progress in 1974 and 1975. 32 p. (McIntire-Stennis Cooperative Forestry Research Institutions report on carrying out their responsibilities under the Act of 1962). Free. Available from: Cooperative State Research Service, Information Staff, 444-A Adm. Bldg. U.S. Department of Agriculture, Washington, D.C. 20250.

The Future of Animals, Cells, Models, and Systems in Research Development, Education, and Testing. Proceedings of a symposium. October 22-23, 1975, . Washington, D.C., organized by the Institute of Laboratory Animal Resources; Division of Biological Sciences, Assembly of Life Sciences, National Research Council (National Academy of Sciences, 1977; 350 p.; ISBN 0-309-02603-2; $9.25). Available from: Printing & Publishing Office, National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, D.C. 20418.

Guayule: An Alternative Source of Natural Rubber. Ad Hoc Panel on Guayule, of the Board on Agriculture and Renewable Resources, Commission on Natural Resources; and of the Advisory Committee on Technology Innovation, Board on Science and Technology for International Development,

(Continued on page 21, col. 2)

CAPITOL HILL LEGISLATION

Only the most pertinent agricultural legislation before the U.S. Congress is listed in this column. Legislation under consideration or reports on it are available at libraries which are Federal Document Depositories; these include most academic and larger public libraries. USDA personnel should contact their D.C. Headquarters Office for access to bills or Reports.

Bills previously listed in this column will be repeated only when major actions have been reported.

BILLS AND ACTIONS

SENATE

S. 720. To authorize the Secretary of Agriculture to *Carry Out a Program of Nutrition Information and Education as part of Food Service Programs for Children Conducted Under the School Lunch and Child Nutrition Acts.* (Introduced February 11, 1977, by Senator Humphrey and others and referred to the Committee on on Agriculture, Nutrition, and Forestry.)

Section 8 of this bill is similar to wording for the Food and Nutrition Information and Educational Resources Center in *H.R.1139,* passed by Senate, June 30. Hearings were held May 5 and 6.

S. 1420. To amend the National School Lunch Act and the Child Nutrition Act of 1966 in order to revise and extend the summer food program, to revise the special milk program, to revise the school breakfast program, to authorize the Secretary of Agriculture to carry out a program of nutrition information and education as part of food service programs for children conducted under such Acts, and for other purposes. Senate passed on June 30, *H.R. 1139* (with nine amendments) in lieu of *S.1420* and conferees were appointed. Includes provision for a Food and Nutrition Information and Education Resources Center within NAL funded at $1,500,000.

S. 1616. To establish a *National Policy Concerning Agricultural, Range, and Forest Land;* to establish an *Agricultural Land Review Commission;* to establish a *Demonstration Program for Protecting Agricultural, Range, and Forest Land from being used for Non-agricultural Purposes.* (Introduced May 26, 1977, by Senator Clark, and referred to the Committee on Agriculture, Nutrition, and Forestry.) Also see, *H.R. 4569.* Pending in Subcommittee on Environment and Soil Conservation.

Senator Williams, remarks on co-sponsoring *S.1616,* the National Agricultural Land Policy Act of 1977. *Congressional Record,* of June 16, 1977, p. S 10070.

S. 1620. To authorize and direct the Secretary of Agriculture to carry out *Forest and Rangeland Renewable Resources Research;* to provide *Cooperative Forest Resources Assistance* to States and other provisions. (Introduced May 27, 1977, by Senator Humphrey for himself and Senator Stennis, and referred to the Committee on Agriculture, Nutrition, and Forestry. Pending in Subcommittee on Environment and Soil Conservation.)

HOUSE

H.R. 1139. National School Lunch Act and Child Nutrition Amendments of 1977. Passed Senate June 30 with the language of the Senate comparison measure (*S. 1420*) as amended. Passed House May 18; Conference Committee called.

This Bill contains major changes in the summer food service program, the special milk program, and the agricultural commodity distribution program. Senate passed bill. Includes: Food and Nutrition Information and Education Resources Center within the National Agricultural Library for:

1. Assemblying and collecting food and nutrition education materials, including the results

(Continued on page 21, col. 1)

(Continued from page 20)

of nutrition research, training methods and procedures.

2. Maintaining such information and materials and providing for their dissemination on a regular basis to State education agencies and interested persons.

3. Providing training for the State coordinator and for interdisciplinary personnel. Includes provision to utilize land-grant colleges, institutions of higher education, and other nonprofit educational to establish one or more regional resouce centers. Provides $1,500,000 to carry out this section.

H.R. 4569. To establish a *National Policy Concerning Agricultural Land;* to establish an *Agricultural Land Review Commission;* to establish a *Demonstration Program for Protecting Agricultural Land from being used for Nonagricultural Purposes.* (Introduced March 7, 1977, by Representative Jeffords and referred to the Committee on Agriculture. (Pending in Subcommittee.) Also see *S. 1616.*

H.R. 7012. To provide for a 40 per centum *Reduction of the Burden on Respondents in the Censuses of Agriculture, Drainage, and Irrigation* taken in 1979 and thereafter; to be cited as the Agricultural Census Amendments Act of 1977. (Introduced May 9, 1977 by Mr. Lehman and referred to the committee on Post Office and Civil Service.) Reported from Committee May 26, 1977 *(H.R. 95-371).*

H.R. 7171 & S. 275. Termed the *Farm Bill* (both listed in *ALIN*, June, p. 13), passed by Senate May 24; reported by House Committee on Agriculture, May 16; House will began full debate July 15. Conference Committee action will follow. Includes provision for Libraries and Information Network.

H.R. 7558. Making appropriations for *Agriculture and Related Agencies Programs for the Fiscal Year* ending September 30, 1978, and for other purposes. Passed House June 21, 1977; Passed Senate June 29.

H.R. 7940. To amend the Food Stamp Act of 1964, as amended, by *Simplifying Administration, Encouraging Participation, and Eliminating Fraud.* (Introduced June 22, 1977 by Mr. Foley and referred to the Committee on Agriculture.) Committee reported Bill June 24 *(H.R. 95-464)* which is a version of amendments to the Food Stamp Act. Due for consideration July 15 with the Farm Bill *(H.R. 7171 & S. 275).*

—Prepared by the Law Library Staff
National Agricultural Library
(202) 447-7751

(Continued from page 19, col. 2)

Commission on International Relations; National Research Council (Board on Science and Technology for International Development, 1977; 91 p.; available from National Technical Information Service, Springfield, Va. 22161; PB 264 170; $5.00 paper, $3.00 microfiche; limited supply of free copies for non-U.S. requesters available from the Board on Science and Technology for International Development).

Northwest Plant Names and Symbols for Ecosystem Inventory and Analysis. 4th ed. Portland,Oregon, Pacific Northwest Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture, 1976. 263 p. Free. Available from: Pacific Northwest Forest and Range Experiment Station, P.O. Box 3141, Portland, Oregon 97208.

Virus Aspects of Applying Municipal Wastes to Land. Symposium held June 1976, University of Florida. Gainesville, Florida. 1977. $10.00 Order from: Center for Environmental Programs, 2014 McCarty Hall, University of Florida, Gainesville, Florida 32611.

The World Food Conference of 1976. Ames, Iowa. Proceedings.Ames, Iowa State University Press, 1977. 685 p. $8.50

NEW BIBLIOGRAPHIES

Bibliographie d'Articles Récents (1973 a 1976) sur la Nature et l'Importance des Flux Énergétiques en Agriculture; Bibliography of Recent Articles (1973 to 1976) on the Nature and Importance of Energy Flux in Agriculture. In: *Bulletin d'Information du CNEEMA*-Centre National d'Études et d' Expérimentation de Machinisme Agricole, no. 228, January 1977, p. 11-15. Order from: C.N.E.E.M.A. Service de Documentation, Parc de Tourvoie, 92160 Antony, France. (NAL call no: 58.9 F843B).

Bibliographie der internationalen Literatur über die Edelkastanie (Castanea sp.); Bibliography of the International Literature on the Chestnut (Castanea sp.). Compiled by Herbert Wilhelm Debor. (Aktuelle Literaturinformationen aus dem Obstbau, no. 56). 1977. 36 p. 334 references to published material on the chestnut since 1945. Order from: Universitätsbibliothek der Technischen Universität Berlin, Abt. Publikationen, D-1000 Berlin 12 (Charlottenburg), Strasse des 17, Germany. (NAL call no.: Z5996.F8A4).

Land Tenure and Agrarian Reform in Africa and the Near East: An Annotated Bibliography. Compiled by the staff of the Land Tenure Center Library, University of Wisconsin under the direction of Teresa J. Anderson. G.K. Hall, Boston, 1976. 423 p. Order from: G.K. Hall & Co., 70 Lincoln Street, Boston, Massachusetts 02111. $22. (NAL call no: Z7164.L3L36).

Man, Food, and Nutrition: A Selected Booklist. Compiled by Robyn C. Frank. Food and Nutrition Information and Educational Materials Center, 1977. 19p. Free from: Food and Nutrition Information and Educational Materials Center, National Agricultural Library, Beltsville, Maryland 20705. (NAL call no:Z5776.N8F7).

1975-1976 U.S. Government Printing Office Publications Useful For Rural Development. Compiled by Daniel S. Kuennen. (University of Delaware, Cooperative Extension Service). May 1977. 76 p. Order from: Community Resource Development, University of Delaware, R.D. 2, Box 48, Georgetown, Delaware 19947.

Ponderosa Pine Bibliography III: 1971 through 1975. Compiled by Elvera A. Axelton. (USDA Forest Service General Technical Report INT-33). March 1977. 54 p. 590 references to published material on *Pinus ponderosa* Laws. Order from: Intermountain Forest and Range Experiment Station, USDA Forest Service, 507 25th Street, Ogden, Utah 88401. (NAL call no.: aSD11.A48).

Populus: A Bibliography of World Literature, 1964-1974. Compiled by Earl D. Hart. (U.S. Southern Forest Experiment Station. U.S.D.A. Forest Service Research Paper SO-124). 1976. 227 p. Order from: U.S. Southern Forest Experiment Station, T-10210 Postal Service Building, 701 Loyola Avenue, New Orleans, Louisiana 70113. (NAL call no.: A99.9 F7628Us).

Selected Bibliography of the Phenoxy Herbicides. I. Fate in the Environment. Compiled by J.D. Diaz-Colon and R.W. Bovey. (Texas Agricultural Experiment Station MP-1303). December 1976. 61 p. Order from: The Texas Agricultural Experiment Station, Texas A&M University, College Station, Texas 78840. (NAL call no: 100 T31M). 563 references to published material including foreign publications.

* * * *

Clearance has been granted to compile the following bibliography:

Range, Wildlife, and Fish Habitat Research Publications, 1973-1976. To be compiled by U.S.D.A. Forest Service, Washington, D C. For information contact: Mary Brigid O'Hara, Forest Service Technical Information Officer, 4080 Research Administration, P.O. Box 2417, Washington, D.C. 20013.

EMERGENCY PROGRAMS, APHIS, ANIMAL DISEASE BIBLIOGRAPHIES

The U.S.D.A. Emergency Programs Staff, Veterinary Services, Animal and Plant Health Inspection Service has created the Emergency Programs Foreign Animal Disease Data Bank, designed to provide access to world literature on the occurrence, detection, control, and eradication of over 40 foreign diseases and other animal contagions, now under partial or complete control. These diseases are capable of sudden epidemic outbreaks and thereby pose a danger to our nation's supply of meat and poultry. The literature is cataloged and indexed in depth using an Emergency Programs created thesaurus specifically designed to uncover those aspects of the diseases important to their control and eradication. All articles indexed in the data bank are in English and include a large number of translations from many different languages. The 9 bibliographies listed below were generated from this automated system and roughly reflect the order of potential danger. These bibliographies are subject to updating dependent upon the rate at which new entries are added to the files. Copies of these bibliographies may be obtained by addressing requests and return address labels to:

Director, Emergency Programs
Veterinary Services, APHIS,USDA
Federal Center Building No.1
Hyattsville, Maryland 20782

Newcastle Disease Bibliography. December 1975. 156 p. 2470 citations. (NAL call no: aZ6674.N4N4)

Venezuelan Equine Encephalomyelitis Bibliography. April 1976. 50 p. 739 citations. (NAL call no: aZ6674.E6V4).

Vesicular Exanthema Bibliography. April 1976. 13 p. 234 citations. (NAL call no: aZ6674.V3V4)

Hog Cholera Bibliography. September 1976. 66 p. 1092 citations. (NAL call no: aZ6674.H6)

Swine Vesicular Disease Bibliography. October 1976. 13 p. 243 citations. (NAL call no: SF977.V3S9)

Visna-Maedi Bibliography. October 1976. 16 p. 275 citations. (NAL call no: aZ6674.V5V5)

African Swine Fever Bibliography. November 1976. 30 p. 526 citations. (NAL call no: aZ6674.A4U5)

Foot-and-Mouth Disease Bibliography. January 1977. 253 p. 4032 citations. (NAL call no: aZ6674.F6U5)

Bluetongue Bibliography. May 1977. 26 p. 430 citations.

QUICK BIBLIOGRAPHY SERIES

The bibliographies in this series are primarily computerized online or batch bibliographies emanating from searches performed by the NAL Reference Staff in response to customer requests.

Searches are selected for inclusion based on the currency of the topic, interest among NAL clientele, relative length (approximately 150 citations or more) and probable value to a larger audience. All titles in this series will be listed for four months. Revisions or updates will be renumbered and reannounced. Only one copy of a title will be sent; however, requestors may make copies. To request a copy of a Quick Bibliography send the title, series number, and a return addressed label to:

Reference Division
National Agricultural Library
Beltsville, MD 20705

NAL -- BIBL. -- 77-12. *Agriculture and Government Policy.* 149 citations from CAIN, no exclusions, 1962-1976. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-13. *Biosystematics—Worldwide.* 187 citations from AGRICOLA, no exclusions, 1968-1976. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-14. *Planting and Sowing Dates.* 150 citations from CAIN, English only, 1973-1976. Search by Henry Gilbert.

(Continued on page 24, col. 1)

(Continued from page 23)

NAL -- BIBL. -- 77-18. *Environmental Instructional Materials for Schools,* 1968-1976. 77 citations from ERIC, English only. Search by William Murphy.

NAL -- BIBL. -- 77-19. *Agricultural Aviation and Spray Dynamics,* 1968-January 1977. 249 citations from AGRICOLA, no exclusions. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-20. *Part-time Farming and Off-Farm Employment,* 1968-1976. 112 citations from AGRICOLA, English only. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-15. *Earthworms,* 1969-1976. 116 citations from CAIN only. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-16. *Effects of Weather Hazards to Agriculture,* 1969-1976. 242 citations from AGRICOLA, no exclusions. Search by Charles N. Bebee.

NAL -- BIBL. -- 77-17. *Organic Farming or Gardening.* 1969-1976. 154 citations from AGRICOLA, no exclusions. Search by Charles N. Bebee.

AGRICULTURE DATEBOOK

October 13–19: 26TH INTERNATIONAL APICULTURAL CONGRESS. Adelaide, Australia. Contact: Apimondia Secretariat, Box 2609 GPO, Sydney, NSW 2001, Australia. Robert Banker, American Beekeeping Federation, Rt. 1, Box 68, Cannon Falls, Minnesota 5009. Can supply information on tours from the United States.

October 21: NAL BIBLIOGRAPHIC DATA BASES - ONE MILLIONTH CITATION. For further information, contact: Vern Van Dyke, National Agricultural Library, Beltsville, Maryland 20705.

October 30–November 3: AMERICAN PUBLIC HEALTH ASSOCIATION CONFERENCE. Washington Hilton, Washington, D.C. For information, contact: Marianna Roxborough, American Public Health Association, 1015 18th Street, N.W., Washington, D.C. 20036. (202) 467-4019. (Conference will have a program on the Rural Health Taskforce.)

November 4: SYMPOSIUM ON INTERNATIONAL AGRICULTURAL LIBRARIANSHIP: CONTINUITY AND CHANGE. For further information, contact: Alan Fusonie, National Agricultural Library, Beltsville, Maryland 20705.

November 14-17: OUTLOOK CONFERENCE, USDA. Washington, D.C. For further information, contact: Rex Daly, Economic Research Service, U.S. Department of Agriculture, 500 12th Street, S.W., Washington, D.C. 20250. (202) 447-8116.

1978

February 5-8: SOUTHERN ASSOCIATION OF AGRICULTURAL SCIENTISTS ANNUAL MEETING. Shamrock-Hilton and Holiday Inn, Houston, Texas. For information, contact: Laurence Walker, 301 Parkway Drive, Athens, Georgia 30606. (404) 543-2152.

March 23-25: RURAL HOUSING CONFERENCE AND WORKSHOP. Hyatt Regency Hotel, Knoxville, Tennessee. For information, contact: Al Henderson, TVA, Muscle Shoals, Alabama 35660. (205) 383-4631, Ext. 393. (Date and place of meeting tentative.)

AGRICULTURAL LIBRARIES INFORMATION NOTES is published monthly by the U.S. Department of Agriculture, National Agricultural Library, Beltsville, MD 20705. Leila Moran, Editor.